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Maryland University  
Official publication

# The Maryland Agricultural College Bulletin

## ANNOUNCEMENT

### SHORT COURSES, 1916

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JANUARY 3RD TO MARCH 11TH, 1916.

Issued monthly excepting the months of November, December, January and February. Entered at College Park, Md., as Second-Class Matter under Act of August 24, 1912.



MARYL



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The net return from  
Her two millions  
could be increased in

Her average yield  
acre, and this would  
dollars more per year

One pint more milk  
men over one million dollars more for their labor each year.

Unused hill land could be turned into pastures that would  
feed at least a half million sheep.

Maryland can be made the greatest fruit State in the East.  
Land suitable for orchard fruits that now sells for \$10 to \$30  
per acre can be made worth \$150 to \$300 per acre.

#### **OTHER CROPS CAN BE DEVELOPED PROPORTIONALLY**

Maryland's soil, climate and location are exceptionally well  
fitted for growing food for man. She has ten million consumers  
in the cities and towns located at her doors.

#### **NO STATE IN THE UNION HAS AS GOOD MARKETS**

The consumers should pay less for food and the producers get  
more for their products than at present. Cooperation between  
buyer and seller will make this possible.

More profit in farming will attract settlers and increase land  
values.

The water-power that is going to waste on thousands of Mary-  
land farms should be harnessed and made to lighten and do  
much of the farm labor.

**Maryland should rank first as a state of prosperous farms and  
pleasant homes.**

Her 200,000 growing boys and girls are entitled to as good  
educational facilities as other States provide for their children.  
They should be trained to make the most of these possibilities.

The first-class equipment of your Agricultural College for  
education, investigation and the demonstration of these possi-  
bilities would be the greatest factor the State could have for  
bringing about these desired results.

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LET US HAVE A GREATER STATE THROUGH A  
GREATER AGRICULTURE, AND A GREATER AGRI-  
CULTURE THROUGH A GREATER AGRICULTURAL  
COLLEGE.



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## WINTER SHORT COURSES

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**S**LOWLY, yet surely, the citizens of the rural communities are realizing the inestimable value of instruction in the arts and sciences of agriculture and allied subjects. The tillers of soil, as a class, until a few years ago, felt that their knowledge of soil, crops and animals was sufficient, and they resented the efforts made to secure changes in their system of farming.

A transition has been in progress, and today the farmer is looking to those agencies such as the state agricultural colleges, experiment stations and the Federal Department of Agriculture, for help in making farming more profitable. Such aid deals both with the production and distribution of products.

The agricultural colleges are active in attempts to satisfy the demands, and the scope of their activities is exerted beyond the instruction in the regular college courses.

It is the function of the experiment stations to conduct investigations in all branches of agriculture. The colleges use the results of the experiment station investigations as a basis for their teachings, while their extension service carries directly to the farm the results of the experiment station investigations.

For those persons who cannot attend the regular four-year and two-year courses, but who can leave the farm for a few weeks during the winter season, the Maryland Agricultural College provides a series of short courses which are held each year during the first ten weeks after January first.

The women of the farm are not being neglected. They are admitted to all of the courses. A course in domestic science has been prepared especially for them, and has proved very popular.

There is no charge for instruction in these courses, and the cost of board and lodging is very reasonable. A statement of this expense and other items of general information will be found on back cover page.

The teaching staff of the College will be augmented by specialists from the Experiment Station, U. S. Department of Agriculture, the Extension Service of the College and experts from Maryland and other States who have made pronounced success in their specialties.

Programmes giving detailed information as to dates, subjects and lecturers for these courses will be forwarded upon request.



# Soils and Fertilizers

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JANUARY 3 to JANUARY 8

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W. T. L. TALIAFERRO, *in charge*

\* \* \* \* \*

THIS course deals with soils, their properties, and how to care for them and make them more productive and fertile. Their relation to water, air, and heat; their adaptation to various crops; their need for drainage; crop rotation, the proper application of manure, fertilizers, and lime are all discussed.



7 Acre Field of Mixed Hay Yields 4.76 Tons Per Acre
1st Cutting—July 9, 1915.....50145 lbs.
2nd Cutting—Sept. 7, 1915.....16520 lbs.
Total.....66665 lbs.

The presence of bacteria in soils is given attention from the standpoint of soil building. Their relations to the decomposition of organic matter, to the fertility of the soil, to leguminous plants, and to the rotting of manure are explained. In this connection a well-equipped soils laboratory gives the student an excellent opportunity to study the physical properties of the different kinds of soils.

Instruction is given in the home mixing of fertilizers for best results. Every effort is made to direct the student toward ways and means of enriching his soil economically, and managing it to produce profitable crops while improving it.



# Farm Crops

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JANUARY 10 to JANUARY 15

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W. T. L. TALIAFERRO, *in charge*

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**F**ARM crops suited to Maryland conditions, their classification, adaptation to soil and climate and various methods of culture form the subject matter of this course.

Their relations to the elements contained in the air and soil are discussed. Explanation is given of how a plant feeds, and of the food products it yields. Questions like, "What is my land good for?" "What can it best produce?" are asked and answered as correctly as possible.

Attention is given to seed selection, the judging of grains, and the planting of improved varieties. Special lectures are devoted to corn, wheat, oats, alfalfa, clovers and forage crops. The preparation of land for these crops; their cultivation and harvesting, with a view to economical production and the saving of labor waste, are taken up thoroughly.

Weeds, their nature, and how to get rid of them; insects and diseases affecting farm crops, are included. After many years' experience,

the farmer may have learned already much of what is taught in this course, but he is sure to find out many things that he does not know, and which he cannot afford to waste time in discovering for himself.



Ensilage Corn Grown at Experiment Station.



# Domestic Science

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JANUARY 10 to JANUARY 15

\* \* \* \* \*

K. A. PRITCHETT, *in charge*

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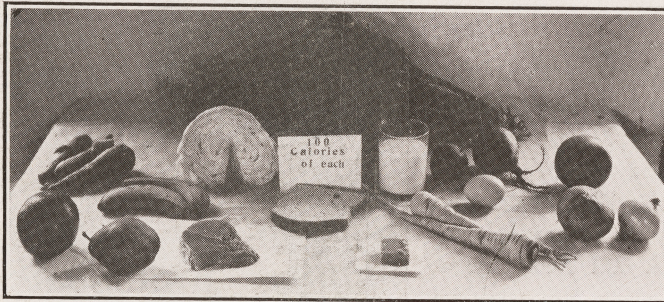
THE Domestic Science Courses given in previous years have been highly successful in the interest aroused among the women of the State, in the high grade of instruction given, and in the appreciative and ready spirit in which this instruction has been received.

## INSTRUCTORS

Katharine A. Pritchett, Columbia University, State Agent, Home Demonstration Work; Florence J. Hunt, Illinois University, Assistant State Agent, Home Demonstration Work; Helen L. Comstock, Cornell University, and others, will lecture and give demonstrations in all branches of home economic work.

## SUBJECTS OF STUDY

*Home Management*—Study of the Family Life, Labor-Saving Devices, Laundry, Chemistry of Household Reagents, Value of Economy of Time and Energy, Sanitation, Home Nursing, Care of the Infant, House Planning, Interior Decoration.



These Amounts Represent 100 Calories.

	oz.		oz.		oz.
Bread	1.38	Onion	8.03	Orange	9.45
Butter	.46	Celery	23.67	Banana	5.51
Milk	5.10	Carrots	10.08	Cabbage	13.26
Eggs	2.69	Pear	6.25	Veal	3.42
Apple	7.49	Beets	5.56	Parsnips	6.78

*Food*—Preservation of Foods, Food Principles and Food Values, Nutrition, Menu Planning, Food Preparation, Study of the Cost of Menu per day, per capita, Infant Feeding, Table Service.

*Clothing*—Textile Chemistry, Simple Sewing, Adaptation of Commercial Pattern to Figure, Design.

NOTE:—The College 'bus will each morning meet the 9.00 o'clock trolley from Washington and the 9.10 o'clock trolley from Laurel. In the afternoon the 'bus will carry passengers from the College to meet the 5.10 and 5.30 trolley cars.



# Road Building and Maintenance

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JANUARY 10 to 15

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T. H. TALIAFERRO, *in charge*

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THE object of the course in Road Building and Maintenance is to offer an opportunity for road engineers, supervisors, inspectors, foremen and other interested persons to receive instruction in the improvement and maintenance of roads, to discuss with specialists the best methods of carrying on the road work and to confer with each other concerning the road problems of Maryland.

Special emphasis will be laid upon the improvement and maintenance of the ordinary country or earth roads, as a very large proportion of the roads are of this type at the present time, and must remain so for many years to come.

The rural as well as the urban community must realize that the improved road is essential to the advancement of the private and public interest.

Ample time will be set apart for a full and free discussion of each and every subject considered in the course, with the hope that every advantage will be taken of the opportunity thus afforded.

The services of a number of specialists have been secured to talk on the different subjects embraced in this very important course.



Road Improvement.

(PAGE FIVE)



# Poultry Husbandry

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JANUARY 17 to 22

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ROY H. WAITE, *in charge*

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THIS course is designed for the busy poultry keeper now engaged in the business, the beginner, and those who are thinking of taking up chicken raising. It is very obvious that we cannot make finished poultry raisers from novices in the short period of one week, but past experience has shown that persons in the classes mentioned above can be greatly benefited. In fact, the object of the course is not so much to develop poultrymen who can go out and operate poultry plants from the start, but to get the students to thinking for themselves.

Even the experienced poultry keeper who has time and inclination for



Poultry Office Building.

taking the course will be amply repaid by a review of the subject. New facts of interest will come up, and he will be mingling with an enthusiastic "chicken crowd."

The beginner cannot help but reap a rich harvest of information that will save him hundreds of dollars that might otherwise be wasted in mistakes or needless experiments to learn facts that are already well known and established.

The course is of especial value to the victim of "chicken fever," who is undecided as to whether or not to enter the field of poultry production. Many persons start in with very erroneous ideas as to the amount of attention required and the profits to be expected. They are misled by the great stories of success in the business so often told.



# Horticulture

\* \* \* \* \*

JANUARY 24 to FEBRUARY 5

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S. B. SHAW, *in charge*

\* \* \* \* \*



A Well-Shaped Tree.

lems of marketing as applied to fruit growing Special lectures will be given by practical authorities on various fruits.

*Small Fruits*—The time devoted to this branch of Horticulture will be taken up in discussing the production of such fruits as strawberries, grapes, currants, gooseberries, raspberries and blackberries. Planting, cultivation and training will be discussed in detail.

*Market Gardening*—Vegetable growing from the standpoint of the market gardener and trucker will be discussed in detail. Lectures will be given on the selection of seed; methods of planting; implements, cultivation and fertiliza-

THE two-weeks' course in Horticulture is given for the discussion and demonstration of practical methods of meeting successfully the various problems which arise in the production of orchard crops, small fruits and truck crops. Landscape work and gardening, as related to the home, are also features of this course.

*Orcharding*—Lectures are given on location as regards soil, climatic and market conditions; the selection of suitable varieties for commercial and home purposes; the planting and pruning of trees; cultivation and feeding of orchards; orchard implements; the control of insects and diseases; harvesting and packing of fruit, and the general prob-



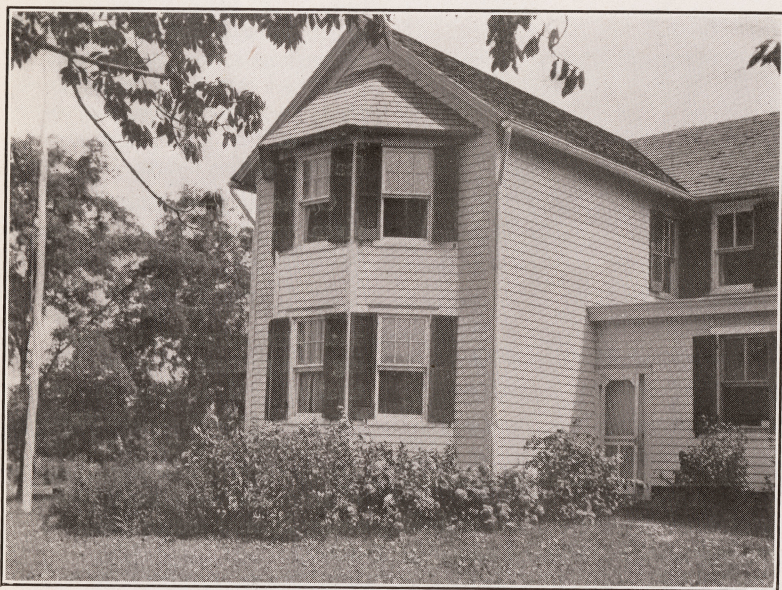
Spraying Demonstration.

(PAGE SEVEN)



tion, harvesting and marketing. Such crops as potatoes, sweet corn, tomatoes, peas, cabbage, canteloupes, etc., will be treated separately by experienced growers.

*Landscape Gardening*—In view of the fact that attractive surroundings play such an important part in the home life, lectures pertaining to the principles underlying this art will be given. The relation of the house to the grounds, and the proper method of embellishing the same will be treated. Flowers and their use in the home flower garden will be given due consideration. The propagation and care of the common ornamentals suitable to planting in the home grounds will be discussed by illustrated lectures and demonstrations. .



Attractive Home Grounds.

*Demonstrations*—These will be a strong feature of this course. Methods of propagation of both tree and bush fruits will be shown. The pruning and training of old and young trees, berry bushes and grape vines will be done in a practical way. Planting of seed, making of cuttings, transplanting of seedlings, potting of plants and the construction of hotbeds and cold-frames will be a part of the course in Market Gardening and in Landscape Gardening. Preparation of insecticides and fungicides, and the spraying of fruit trees will be demonstrated in detail. Classes will also have an opportunity to grade and pack fruit. The idea of the demonstration work is to give a practical working knowledge of as many as possible of the subjects under discussion.



# Farm Live Stock

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FEBRUARY 7 to FEBRUARY 19

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R. H. RUFFNER, *in charge*

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Grade Percherons.

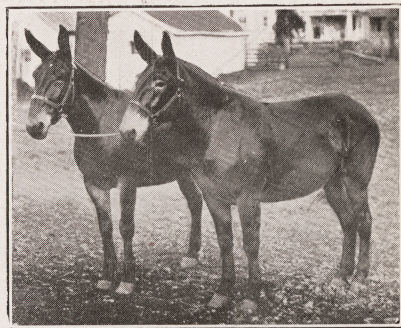
proportionate to the number of animals kept and the degree of attention they are given. We believe, therefore, that every legitimate means of encouragement should be brought to bear upon the Maryland farmer in making Maryland a State noted for her live stock interests, and the breeding of her own high-class strains of farm animals.

With this end in mind, we offer as a part of this course the study of breeds, the judging of horses and cattle for soundness, condition and type, and the general principles of live stock breeding.

Thousands of dollars are spent by Maryland farmers each year in the unnecessary purchase of expensive feeds. Special emphasis is laid on the economical and rational feeding of all farm animals. Instruction is given in working out balanced rations from feeds available on individual farms and in different localities.

We endeavor to teach each student how to buy a good feeder. Fat cattle, hogs and lambs will be slaughtered for market in our large demonstration

THE course in farm live stock is especially planned for those who wish to raise superior live stock with economy and success. The best farming requires the keeping of farm animals, and the amount of profit obtained is directly pro-



Mules of Good Type.

(PAGE NINE)



room. The more profitable marketing of fattened stock and the selection and handling of meats for home and neighborhood consumption will be touched upon.

The hothouse lamb industry, its present standing and possibilities for development in many sections of Maryland, will be featured. To this end the services of two experienced growers of winter lambs have been secured, and their experience should prove most interesting to prospective sheep owners.

Students will have an opportunity to inspect the hog anti-cholera serum plant at the Experiment Station. A demonstration of the serum treatment will be included in the work of the course.



Ready to Top the Market.



# Dairying

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FEBRUARY 21 to FEBRUARY 26

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R. H. RUFFNER, *in charge*

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THE dairy industry in Maryland is of much greater magnitude than is apparent to the average observer. The most reliable figures available at the present time place the total number of dairy cows in Maryland at 166,859, with a farm value of more than \$6,000,000. This represents more investment than all the meat cattle of the State, together with its hogs and sheep. It is an industry that tends to intensify farming methods. It is one of the factors which enters most strongly into the great question of conserving soil fertility.



Harford County Dairy Herd.

There are two directions in which much improvement can be made, namely, in raising the annual production of our cows, and in improving the quality of our dairy products. The first is the more important. Could the annual product of the Maryland cow be advanced a few pounds of milk or butter per year, it would bring greatly increased returns to our producers.

Certain sections of Maryland are well fitted for dairying, and in such localities the industry should be encouraged as much as possible.

During the brief time allowed for dairy instruction, the following subjects will be discussed: the judging of dairy cows, dairy breeds and types, cooperative breeding and testing, the building of silos, feeding for economic production, types of dairy barns, dairy sanitation, effects of dairying on the soil. Excursions will be made to the Government Breeding Farm, at Beltsville, and to the Soldiers' Home Dairy, Washington, District of Columbia.

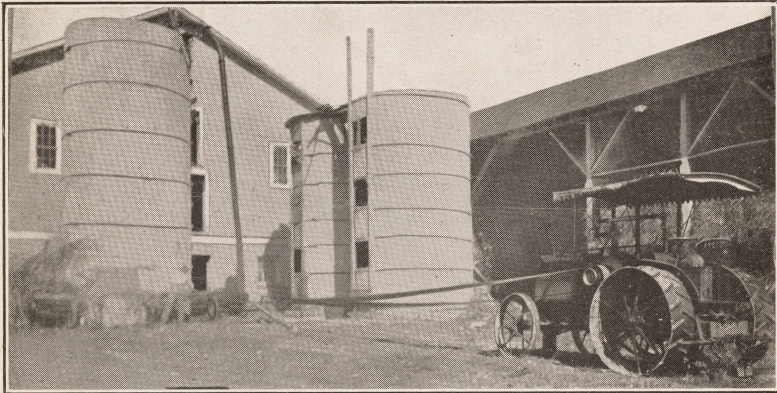


# Farm Machinery and Engines

FEBRUARY 28 to MARCH 4

W. T. L. TALIAFERRO, *in charge*

THE study of farm machinery and motors in this course is intended to familiarize the student with the construction and use of various implements and machines required in meeting modern farm conditions and in solving the labor problem. The gasoline engine and its adaptability to a wide variety of service will be thoroughly demonstrated.



Gasoline Tractor and Ensilage Cutter.

## Carpentry, Blacksmithing, Pipe-Fitting

MARCH 6 to MARCH 11

HARRY GWINNER, *in charge*

This is a most valuable course for the average farmer. He can save much by sharpening and fitting his own tools, and by knowing when this work has been done properly.

*Carpentry*—A handy thing for the farmer to have is the ability to plan and construct his sheds, outbuildings, and the many appliances about the farm that need to be kept in repair.

*Forging*—A small forge, and the knowledge necessary to do some of his own iron work at odd times, such as making open links, chain welds or temporary machine repairs is often worth a great deal. Many a farmer in one of his rush seasons has had to lose three or four hours of the best part of his working-day in making a hurried trip to the nearest blacksmith shop, wasting both time and money.

*Pipe-fitting*—Knowing how to lay pipe and make sound connections is something that every enterprising farmer will find of use in supplying the house, barns and garden with water.



# **CORRESPONDENCE COURSES IN AGRICULTURE AND HOME ECONOMICS**

## **FOR WHOM INTENDED.**

There are a large number of persons who wish to engage in agriculture, who have not been trained for it, and cannot attend an agricultural college. There are also many farmers desirous of making a systematic study of some particular line of agriculture, and many farm women who want to study home-making, but they cannot leave home to do so. To meet the needs of those who must study at home, the Extension Service of the Maryland Agricultural College has established a Correspondence Study Department.

## **TEACHING BY MAIL IS PRACTICAL**

Instruction by mail is not a new thing. This phase of extension work is recognized as an efficient means of giving valuable information and directing systematic study. Its possibilities are unlimited. Many of the agricultural colleges of the United States are conducting correspondence study, and satisfactory results are being obtained. For the ambitious person who cannot leave the farm or home to attend the regular four- or two-year courses, or the winter short courses at the State College, and who desires to utilize the evening hours in acquiring a better knowledge of agriculture and home economics, the correspondence courses present the opportunity sought.

## **COURSES PREPARED BY SPECIALISTS**

The lessons written on each subject have been prepared by specialists of the College and Experiment Station. Technical terms have been excluded as much as possible and the matter presented in a clear, yet concise manner. The information contained in the lessons will be the latest available, and will be made especially applicable to Maryland conditions.

For descriptive bulletin address, Secretary, Correspondence Study Department, College Park, Md.



# **General Information**

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## **LOCATION AND CONNECTIONS**

The Maryland Agricultural College is located at College Park, on the Baltimore and Ohio Railroad, between Baltimore and Washington, forty minutes by trolley from the United States Department of Agriculture, the Congressional Library, and the Government Experiment Farms.

## **SHORT-COURSE HEADQUARTERS**

Adjoining the College grounds are the Agricultural Experiment Station and Farm. Here, in the Biological Laboratory Building, are located the headquarters for the Short Courses, the main lecture hall, and a demonstration room for killing, dressing, packing, etc. These rooms are floored with cement, and are commodious enough to allow of machinery, stock, etc., being brought in for study and examination, regardless of weather conditions.

## **CLASS-ROOMS**

The lecture rooms, laboratories and greenhouses of the College are offered freely for the use of short-course students, as guests of the College and the regular student body.

## **LIBRARY AND READING-ROOM**

The College library is open daily, and students are encouraged to consult books bearing upon their subjects of study. The privileges of the College reading-room are also extended to them.

## **DAIRY BARNs**

A set of dairy barns, housing a herd of pure-bred Ayrshires and Guernseys, demonstrates practical methods of dairy management. Especial attention is invited to the valuable features of the Open Dairy Barn, original with our Experiment Station.

## **ACCOMMODATIONS AND COST**

Instruction is free. Board may be had in College Park, or in the adjoining trolley-connected towns of Hyattsville, Riverdale or Berwyn, at about \$5.00 a week for board and lodging. All persons planning to attend these courses should write us promptly, so that proper accommodations can be secured.

Address all enquiries for detailed programs and other information desired regarding the Short Courses to

**H. J. PATTERSON, President,**  
College Park, Md.                      Maryland Agricultural College.